

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for reproducing contents information in a device, comprising:

a) synchronously reproducing data read from a recording medium and contents information downloaded from a contents provider server connected via a network interface, said contents information being associated with the data read from the recording medium;

b) sending a command for requesting re-sending of specific contents information to the contents provider server, with reference to specific information contained in normally reproduced last contents information, if reception of said contents information from said contents provider server is suspended or delayed; and

c) synchronously reproducing said specific contents information re-sent from said contents provider server in response to said command and data read from said recording medium,

wherein said specific information contained in said normally reproduced last contents information includes at least one of ~~playback time information~~, contents information offset information[[,]] and offset information of said data read from said recording medium.

2. (Cancelled)

3. (Previously Presented) The method as set forth in claim 1, wherein said step b) includes the steps of:

b-1) checking said specific information contained in said normally reproduced last contents information if the reception of said contents information from said contents provider server is suspended or delayed;

b-2) calculating information regarding re-synchronizable contents information based upon said checked specific information; and

b-3) generating as said command a command for requesting re-sending of specific contents information corresponding to the calculated information regarding said re-synchronizable contents information and sending the generated command to said contents provider server.

4. (Original) The method as set forth in claim 3, wherein said information regarding said re-synchronizable contents information is calculated with reference to a bandwidth of a current network bit rate.

5. (Original) The method as set forth in claim 3, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said re-synchronizable contents information.

6. (Previously Presented) The method as set forth in claim 3, wherein said step c) includes the steps of:

c-1) extracting said specific information from said specific contents information re-sent from said contents provider server; and

c-2) re-synchronizing and reproducing said data read from said recording medium and said re-sent specific contents information based upon the extracted specific information.

7. (Original) The method as set forth in claim 6, wherein said step c) further includes the step of receiving a command for notification of the re-sending of said specific contents information from said contents provider server before said step c-1) is performed.

8. (Previously Presented) The method as set forth in claim 1, wherein said step b) includes the steps of:

b-1) determining whether a size of contents information downloaded into a buffer memory of said recording medium device and not yet reproduced is below a predetermined reference value, if the reception of said contents information from said contents provider server is suspended or delayed,;

b-2) automatically pausing a data reproducing operation of said recording medium if the size of said contents information downloaded into said buffer memory and not yet reproduced is below said predetermined reference value; and

b-3) sending said command for requesting the re-sending of said specific contents information to the said contents provider server, with reference to said specific information contained in said normally reproduced last contents information.

9. (Previously Presented) The method as set forth in claim 8, wherein said step b-3) includes the steps of:

b-3-1) checking said specific information contained in said normally reproduced last contents information;

b-3-2) calculating information regarding contents information subsequent to said normally reproduced last contents information based upon the checked specific information; and

b-3-3) generating as said command a command for requesting re-sending of specific contents information corresponding to the calculated information and sending the generated command to said contents provider server.

10. (Original) The method as set forth in claim 9, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said contents information subsequent to said normally reproduced last contents information.

11. (Previously Presented) The method as set forth in claim 8, wherein said step c) includes the steps of:

c-1) receiving a command for notification of the re-sending of said specific contents information from said contents provider server;

c-2) after said re-sending notification command is received, extracting said specific information from said specific contents information re-sent from said contents provider server; and

c-3) re-synchronizing and reproducing said data read from said recording medium and said re-sent specific contents information based upon the extracted specific information.

12. (Currently Amended) A method for providing contents information in a contents provider server, comprising:

a) sequentially sending data packets containing contents information whose sending is requested by a device connected via a network interface, and specific information regarding said contents information whose sending is requested, said contents information being associated with data to be read from the recording medium in the device;

b) receiving a command for requesting re-sending of specific contents information, from said device, if the sending of said requested contents information is suspended or delayed; and

c) re-sending a data packet containing said specific contents information and specific information regarding said specific contents information to said device in response to said command,

wherein said specific information contained in said normally reproduced last contents information includes at least one of ~~playback time information~~, contents information offset information[[,]] and offset information of said data read from said recording medium.

13. (Previously Presented) The method as set forth in claim 12, wherein said sent contents information is audio data to be reproduced synchronously with video data read from a recording medium in said device.

14. (Cancelled)

15. (Original) The method as set forth in claim 12, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being information regarding said specific contents information.

16. (Previously Presented) The method as set forth in claim 15, wherein said step c) includes the steps of:

c-1) seeking a position of data corresponding to said information regarding said specific contents information;

c-2) sending a command for notification of the re-sending of said specific contents information to said device; and

c-3) reading said specific contents information at said position and re-sending said data packet containing said specific contents information and said specific information to said device.

17. (Currently Amended) A method for reproducing contents information in a device, comprising:

a) downloading offset table information from a contents provider server connected via a network interface, said offset table information including at least one of ~~playback time information~~, offset information of data read from a recording medium and contents information offset information in a linked manner;

b) reproducing contents information downloaded from said contents provider server and data read from said recording medium, said contents information being associated with the data read from the recording medium;

c) sending a command for requesting re-sending of specific contents information to the contents provider server, with reference to said offset table information, if reception of said contents information from said contents provider server is suspended or delayed; and

d) reproducing said specific contents information re-sent from said contents provider server in response to said command together with data read from said recording medium .

18. (Cancelled)

19. (Previously Presented) The method as set forth in claim 17, wherein said step c) includes the steps of:

c-1) extracting information regarding normally reproduced last contents information from said offset table information if the reception of said contents information from said contents provider server is suspended or delayed;

c-2) calculating information regarding re-synchronizable contents information based upon the extracted information; and

c-3) generating as said command a command for requesting re-sending of specific contents information corresponding to the calculated information regarding said re-synchronizable contents information and sending the generated command to said contents provider server.

20. (Original) The method as set forth in claim 19, wherein said information regarding said re-synchronizable contents information is calculated with reference to a bandwidth of a current network bit rate.

21. (Original) The method as set forth in claim 19, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said re-synchronizable contents information.

22. (Previously Presented) The method as set forth in claim 17, wherein said step d) includes the steps of:

d-1) receiving a command for notification of the re-sending of said specific contents information from said contents provider server; and

d-2) synchronously reproducing said specific contents information re-sent from said contents provider server and said data read from said recording medium, after said re-sending notification command is received.

23-24. (Cancelled)

25. (Currently Amended) A method for providing contents information in a contents provider server, comprising:

a) sending offset table information regarding contents information whose sending is requested by a device connected via a network interface, said offset table information including at least one of ~~playback time information~~, offset information of data read from said device and contents information offset information in a linked manner;

b) sequentially sending said contents information whose sending is requested by said device, if the sending of said offset table information is completed, said contents information being associated with data read from the recording medium;

c) receiving a command for requesting re-sending of specific contents information, from said device, if sending of said requested contents information is suspended or delayed as a result of step (b); and

d) re-sending said specific contents information to said device in response to said command.

26. (Previously Presented) The method as set forth in claim 25, wherein said sent contents information is audio data to be reproduced synchronously with video data read from a recording medium in said device.

27. (Cancelled)

28. (Original) The method as set forth in claim 25, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being information regarding said specific contents information.

29. (Previously Presented) The method as set forth in claim 28, wherein said step d) includes the steps of:

d-1) seeking a position of data corresponding to said information regarding said specific contents information;

d-2) sending a command for notification of the re-sending of said specific contents information to said device; and

d-3) reading said specific contents information at said position and re-sending said specific contents information to said device.

30. (Previously Presented) A method for reproducing contents information in a device, comprising:

a) synchronously reproducing data read from a recording medium and contents information downloaded from a contents provider server connected via a network interface, said contents information being associated with the data read from the recording medium; and

b) sending a command for requesting adjustment of a contents information bit rate to said contents provider server, if a size of contents information downloaded into a buffer memory of

said recording medium device and not yet reproduced is smaller than or equal to a first predetermined reference value or greater than or equal to a second predetermined reference value.

31. (Previously Presented) The method as set forth in claim 30, wherein said step a) includes the steps of:

a-1) over said network interface, attempting a connection to said contents provider server having said contents information to be reproduced synchronously with said data read from said recording medium;

a-2) generating a command for requesting sending of said contents information, based upon information necessary for the connection sent from said contents provider server, and sending the generated command to said contents provider server; and

a-3) synchronizing and reproducing said contents information sent and downloaded from said contents provider server in response to said sending request command and said data read from said recording medium.

32. (Original) The method as set forth in claim 31, wherein said information necessary for the connection sent from said contents provider server includes an Internet protocol (IP) address and port number of said contents provider server.

33. (Original) The method as set forth in claim 30, wherein said command for requesting the adjustment of said contents information bit rate includes a parameter, said parameter being an available memory size of said buffer memory.

34. (Previously Presented) A method for providing contents information in a contents provider server, comprising:

a) sequentially sending contents information whose sending is requested by a device connected via a network interface, said contents information being associated with data to be reproduced in the device; and

b) adjusting the bit rate in response to a command for requesting adjustment of a contents information bit rate and sending the requested contents information at the adjusted bit rate.

35. (Previously Presented) The method as set forth in claim 34, wherein said step a) includes the steps of:

a-1) sending information necessary for the connection to said device, if a connection from said device is requested over said network interface; and

a-2) sequentially sending said contents information whose sending is requested by said device, if a command for requesting sending said contents information is received from said device.

36. (Original) The method as set forth in claim 35, wherein said information necessary for the connection includes an IP address and port number of said contents provider server.

37. (Previously Presented) The method as set forth in claim 34, wherein said command for requesting the adjustment of said contents information bit rate includes a parameter, said parameter being an available memory size of a buffer memory of said device.

38. (Previously Presented) The method as set forth in claim 37, wherein said step b) includes the steps of:

b-1) calculating a new bit rate in consideration of said parameter of said command, a current bit rate and a play speed of said contents information, if said command for requesting the adjustment of said contents information bit rate is received from said device; and

b-2) sending said contents information at the calculated new bit rate.

39. (Currently Amended) An apparatus for reproducing contents information, comprising:

a reproducing unit configured to synchronously reproduce data read from a recording medium and contents information downloaded from a contents provider server connected via a network interface, said contents information being associated with the data read from the recording medium; and

a controller, coupled to the contents provider server, configured to send a command for requesting re-sending of specific contents information, with reference to specific information contained in normally reproduced last contents information, if the controller determines that

reception of said contents information from said contents provider server is suspended or delayed,

wherein said controller is further configured to control the reproducing unit to synchronously reproduce said specific contents information re-sent from said contents provider server in response to said command and data read from said recording medium, and

wherein said specific information contained in said normally reproduced last contents information includes at least one of ~~playback time information~~, contents information offset information[[,]] and offset information of said data read from said recording medium.

40. (Cancelled)

41. (Previously Presented) The apparatus of claim 39, wherein said controller is configured to

check said specific information contained in said normally reproduced last contents information if the reception of said contents information from said contents provider server is suspended or delayed,

calculate information regarding re-synchronizable contents information based upon said checked specific information, and

send as said command a command for requesting re-sending of specific contents information corresponding to the calculated information regarding said re-synchronizable contents information.

42. (Previously Presented) The apparatus of claim 41, wherein said controller is configured to calculate said information regarding said re-synchronizable contents information with reference to a bandwidth of a current network bit rate.

43. (Previously Presented) The apparatus of claim 41, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said re-synchronizable contents information.

44. (Previously Presented) The apparatus of claim 41, wherein said controller is further configured to

extract said specific information from said specific contents information re-sent from said contents provider server, and

control the reproducing unit to synchronously reproduce said data read from said recording medium and said re-sent specific contents information based upon the extracted specific information.

45. (Previously Presented) The apparatus of claim 44, wherein said controller is configured to receive a command for notification of the re-sending of said specific contents information from said contents provider server, before extracting said specific information.

46. (Previously Presented) The apparatus of claim 40, wherein said controller is further configured to

determine whether a size of contents information downloaded into a buffer memory of said recording medium device and not yet reproduced is below a predetermined reference value, if the controller determines that the reception of said contents information from said contents provider server is suspended or delayed,

automatically pause a data reproducing operation of said recording medium if the size of said contents information downloaded into said buffer memory and not yet reproduced is below said predetermined reference value, and

send said command for requesting the re-sending of said specific contents information to the said contents provider server, with reference to said specific information contained in said normally reproduced last contents information.

47. (Previously Presented) The apparatus of claim 46, wherein said controller is further configured to

check said specific information contained in said normally reproduced last contents information,

calculate information regarding contents information subsequent to said normally reproduced last contents information based upon the checked specific information, and

generate as said command a command for requesting re-sending of specific contents information corresponding to the calculated information and sending the generated command to said contents provider server.

48. (Previously Presented) The apparatus of claim 47, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said contents information subsequent to said normally reproduced last contents information.

49. (Previously Presented) The apparatus of claim 46, wherein said controller is further configured to

receive a command for notification of the re-sending of said specific contents information from said contents provider server,

extract said specific information from said specific contents information re-sent from said contents provider server, after said re-sending notification command is received, and

control the reproducing unit to synchronously reproduce said data read from said recording medium and said re-sent specific contents information based upon the extracted specific information.

50. (Currently Amended) An apparatus for reproducing contents information, comprising:
an interface unit configured to download offset table information from a contents provider server connected via a network interface, said offset table information including at least one of ~~playback time information~~, offset information of said data read from said recording medium and contents information offset information in a linked manner;

a reproducing unit configured to reproduce contents information downloaded from said contents provider server and data read from a recording medium, said contents information being associated with data read from the recording medium; and

a controller, coupled to the interface unit, configured to send a command for requesting re-sending of specific contents information to the contents provider server, with reference to said offset table information, if the controller determines that the reception of said contents information from said contents provider server is suspended or delayed,

wherein said controller is further configured to control the reproducing unit to reproduce said specific contents information re-sent from said contents provider server in response to said command together with data read from said recording medium.

51. (Previously Presented) The apparatus of claim 50, wherein said controller is further configured to

extract information regarding normally reproduced last contents information from said offset table information, if the controller determines that the reception of said contents information from said contents provider server is suspended or delayed,

calculate information regarding re-synchronizable contents information based upon the extracted information,

generate as said command a command for requesting re-sending of specific contents information corresponding to the calculated information regarding said re-synchronizable contents information, and

send the generated command to said contents provider server.

52. (Previously Presented) The apparatus of claim 51, wherein said controller is configured to calculate said information regarding said re-synchronizable contents information with reference to a bandwidth of a current network bit rate.

53. (Previously Presented) The apparatus of claim 51, wherein said command for requesting the re-sending of said specific contents information includes a parameter, said parameter being said information regarding said re-synchronizable contents information.

54. (Previously Presented) The apparatus of claim 50, wherein said controller is further configured to

receive a command for notification of the re-sending of said specific contents information from said contents provider server, via the interface unit, and

control the reproducing unit to synchronously reproduce said specific contents information re-sent from said contents provider server and said data read from said recording medium, after said re-sending notification command is received.